SAVAGE ARMS CO.

UTICA, N.Y., U.S.A.

.....1900.....

SAVAGE ARMS COMPANY

MANUFACTURERS OF

HIGH-GRADE, HAMMERLESS

Military, Sporting Rifles and Carbines

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T. R. PROCTOR, Vice-President.
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METALLIC AMMUNITION

SMOKELESS POWDER

METAL COVERED BULLETS

RE-LOADING TOOLS AND SIGHTS

UTICA, NEW YORK, U. S. AMERICA.

TERMS OF SALE.

1. Terms are net cash.
2. No discount from list prices, except to dealers in actual trade. Special terms for large contracts.
3. Discounts to dealers in actual trade given only on application.
4. Remittances must be made by money order, cash by express or in New York funds or their equivalent.
5. Shipments C. O. D. to parties not known to us will be made only on receipt of not less than 25 per cent. of the value of shipment. The extra charges for making the collection of the balance must be borne by the party giving the order.
6. Goods are never sent on approval. Prices subject to change without notice.
7. Mail orders from unknown parties must be accompanied with cash or reliable references.

SHIPPING INSTRUCTIONS.

1. Re-loading tools, sights, and parts not exceeding four pounds in weight can be sent by mail to all parts of the United States at a prepaid expense of one cent for each ounce in weight.
2. Loaded cartridges, primed shells, powder or primers can not be sent by mail.
3. All goods sent to us must be plainly marked with the name and address of the party sending the same, and all express or other charges prepaid.
4. All goods securely packed for shipment. Our responsibility ceases on receiving a bill of lading.
5. Claims for errors must be made immediately upon receipt of goods.
6. Freight or express charges must be paid by purchasers.
7. Give Post Office address with name of State and County.

Savage Rifle, Model 1899.

Round Barrel Rifle,	$20.00
Grade A Engraving,	5.00
Checking,	5.00

The engraving is carefully executed scroll work on both sides and top of the receiver, and also lines following the contour of the receiver.

Any kind of barrel and stocks can be had with this grade.

Savage Rifle, Model 1899.

Round Barrel Rifle,	$20.00
Grade B Engraving,	10.00
Checking,	5.00

A deer or other animal is engraved on both sides of the receiver with scroll work, with relieving lines on the receiver. This grade can be had with any kind of barrel and stocks desired.

Savage Rifle, Model 1899.

Octagon Barrel Rifle, ...	$21.50
Grade C Engraving, ...	20.00
Checking, ...	5.00

This engraving is very handsome, both sides of the receiver being covered with scroll work and animal scenes. This engraving can be had with any kind of barrel and stocks desired.

Savage Rifle, Model 1899.

Octagon Barrel Rifle, ...	$21.50
Grade D Engraving, ...	30.00
Fancy English Walnut Stocks and Fore-arm, Checked, .	15.00

The other side of the receiver shows different but equally rich engraving. This grade of engraving can be had with any kind of barrel or stocks desired.

Savage Rifle, Model 1899.

Round Barrel Rifle,	$20.00
Grade E Engraving,	40.00
Savage Combination Rear Sight,	3.00
Checking,	8.00

The engraving is very elaborate. Fine animal scenes on both sides of the receiver. This rifle presents a remarkably rich appearance. It can be had with any kind of barrel and stocks desired.

Savage Rifle, Model 1899.

Octagon Barrel Rifle, ...	$21.50
Grade F Engraving, ...	50.00

The entire receiver on this gun is engraved. The engraving on the other side consists of a landscape and deer. All engraving is very fine and elaborate.

This grade can be had with any kind of barrel or stocks desired.

Savage Rifle, Model 1899.

Octagon Barrel Rifle,	$21.50
Grade G Engraving,	130.00
Carved Stocks,	50.00
Extra Fancy Circassian Walnut Stocks and Fore-arm, checked,	20.00

This rifle is very elaborately engraved, and of the finest workmanship, in a manner impossible to reproduce in a cut, to do the work justice. The stocks are handsomely carved. The wood selected for this grade is the very finest Circassian Walnut. All parts of the mechanism are specially finished. The rifle can be had with any kind of barrel desired.

Savage Rifle, Model 1899.

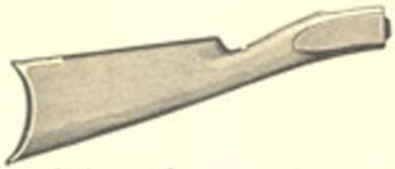
PISTOL GRIP.

SAVAGE RIFLE, Octagon Barrel, Model 1899.

Length of Barrel, . . .	26 inches.	Number of Cartridges, . . .	6
Weight, ...	8 lbs. 3 oz.	Caliber, ...	.303
	Rifle Butt Plate, .	Steel	
The price of the pistol grip stock is	$5.00 extra.	Checking, A grade, ...	$5.00
	Checking, B grade (as on page 6), . .	$8.00	

Savage Magazine Rifle

As a Take Down.



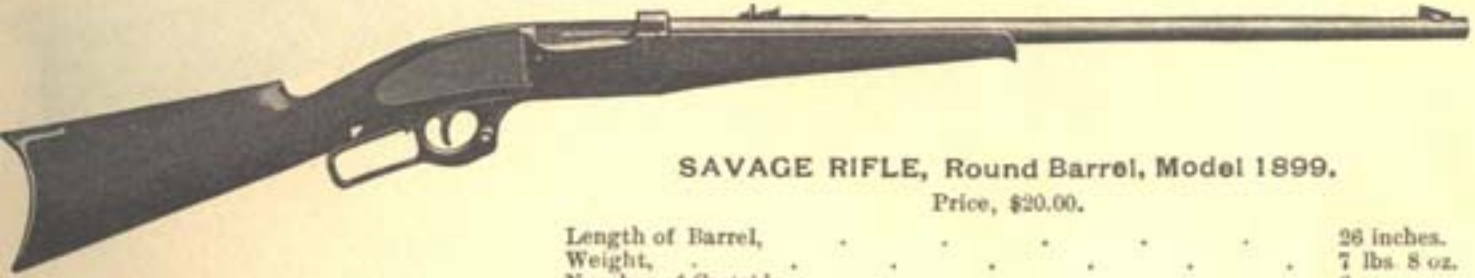
Owing to the increased pressure of smokeless powder, it has been found impracticable to disconnect the barrel from the receiver to make a "Take Down." All the strength possible is required at this junction.

"Take Downs" made on this principle very soon become loose, making the rifle useless.

By removing the butt stock from the SAVAGE rifle, the arm can be packed in a trunk 33 inches long, inside measurement.

To remove the butt stock, unscrew and remove the butt plate, and loosen the butt stock screw, then draw the stock back away from the receiver. By opening the lever, the rifle is made shorter.

Savage Hammerless Sporting Rifle.



SAVAGE RIFLE, Round Barrel, Model 1899.

Price, $20.00.

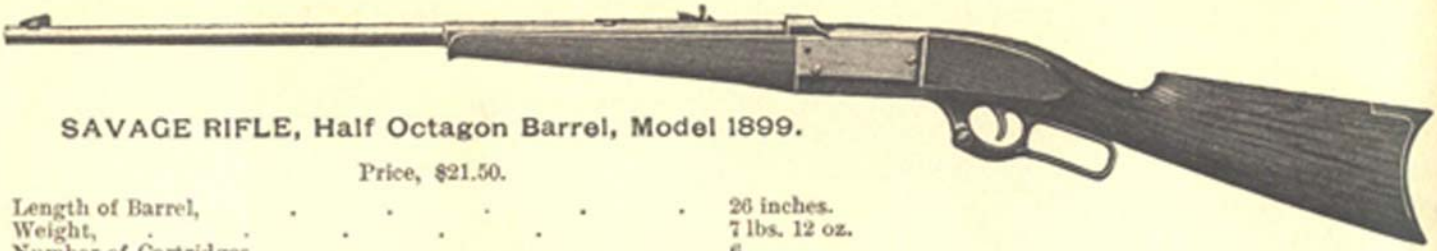
Length of Barrel,	26 inches.
Weight,	7 lbs. 8 oz.
Number of Cartridges,	6.
Caliber,	303.
Rifle Butt Plate,	Steel.

SAVAGE RIFLE, Round Barrel, Model 1899.

Price, $20.00.

Length of Barrel,	26 inches.
Weight,	7 lbs. 5 oz.
Number of Cartridges,	6.
Caliber,	.303.
Shot-gun Butt Plate,	Steel.

SAVAGE rifles can also be furnished to take the 30-30 smokeless cartridges, if so ordered.



SAVAGE RIFLE, Half Octagon Barrel, Model 1899.

Price, $21.50.

Length of Barrel,	26 inches.
Weight,	7 lbs. 12 oz.
Number of Cartridges,	6.
Caliber,	.303.
Rifle Butt Plate,	Steel.

SAVAGE RIFLE, Half Octagon Barrel, Model 1899.

Price, $21.50.

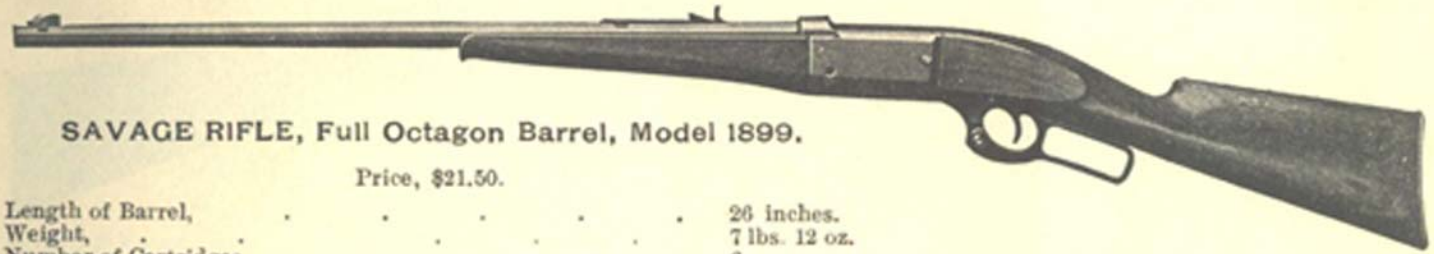
Length of Barrel,	26 inches.
Weight,	7 lbs. 8 oz.
Number of Cartridges,	6.
Caliber,	.303.
Shot-gun Butt Plate,	Steel.

SAVAGE rifles can also be furnished to take the 30-30 smokeless cartridges, if so ordered.

SAVAGE RIFLE, Full Octagon Barrel, Model 1899.

Price $21.50.

Length of Barrel,	26 inches.
Weight,	8 lbs.
Number of Cartridges,	6.
Caliber,	.303.
Rifle Butt Plate,	Steel.

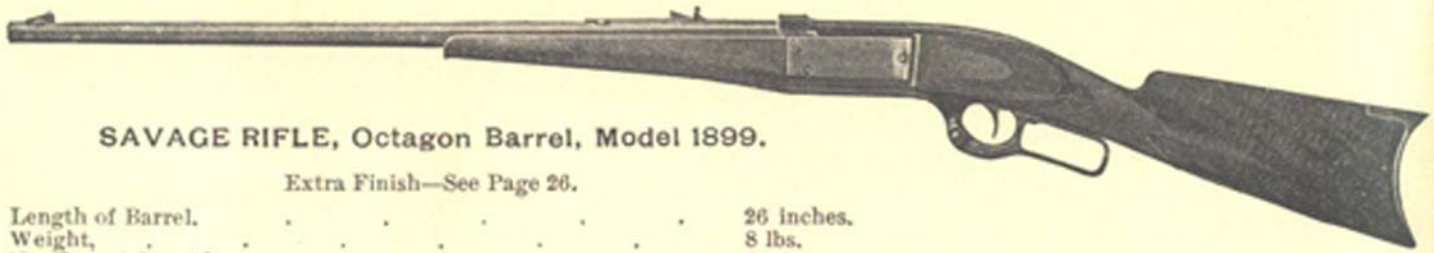


SAVAGE RIFLE, Full Octagon Barrel, Model 1899.

Price, $21.50.

Length of Barrel,	26 inches.
Weight,	7 lbs. 12 oz.
Number of Cartridges,	6.
Caliber,	.303.
Shot-gun Butt Plate,	Steel.

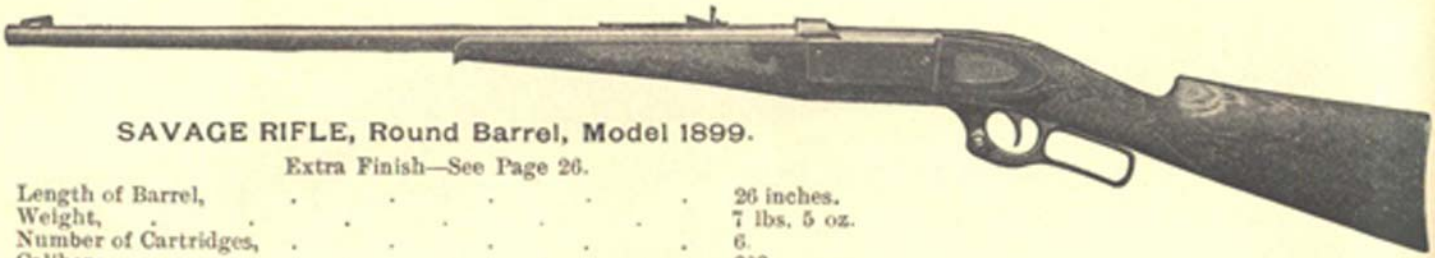
SAVAGE rifles can also be furnished to take the 30-30 smokeless cartridges, if so ordered.



SAVAGE RIFLE, Octagon Barrel, Model 1899.

Extra Finish—See Page 26.

Length of Barrel,	26 inches.
Weight,	8 lbs.
Number of Cartridges,	6.
Caliber,	.303.
Rifle Butt Plate,	Steel.



SAVAGE RIFLE, Round Barrel, Model 1899.

Extra Finish—See Page 26.

Length of Barrel,	26 inches.
Weight,	7 lbs. 5 oz.
Number of Cartridges,	6.
Caliber,	.303.
Shot-gun Butt Plate,	Steel.

Fancy Stocks, Checked, Engraved. For Prices, see page 26.

SAVAGE rifles can also be furnished to take the 30-30 smokeless cartridges, if so ordered.

ANGULAR BAYONET. SWORD BAYONET.

SAVAGE REPEATING HAMMERLESS MILITARY RIFLE.

Prices on application.

Length of Barrel,	28 inches.
Weight,	8¼ lbs.
Number of Cartridges,	6.
Caliber,	.303.

SAVAGE CARBINE, Model 1899.

Price, $20.00.

Length of Barrel,	20 inches.
Weight,	7¼ lbs.
Number of Cartridges,	6.
Caliber,	.303.

SAVAGE rifles can also be furnished to take the 30-30 smokeless cartridges, if so ordered.

TOP VIEW OF SAVAGE SPORTING RIFLE.

The small compact magazine system of the Savage .303 rifle gives the arm a remarkably neat appearance, so that it is generally taken to be a single shot rifle only; no outward sign of a magazine is apparent.

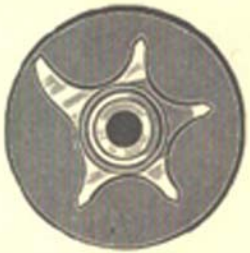
SAVAGE RIFLE, Round Barrel, Model 1899.

Price, $20.00.

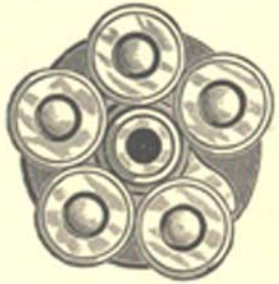
Length of Barrel,	22 inches
Weight,	6 lbs. 14 oz.
Number of Cartridges,	6.
Caliber,	.303.
Shot-gun Butt Plate,	Steel.

Rear View of Magazine.

Showing position of cartridges in magazine.

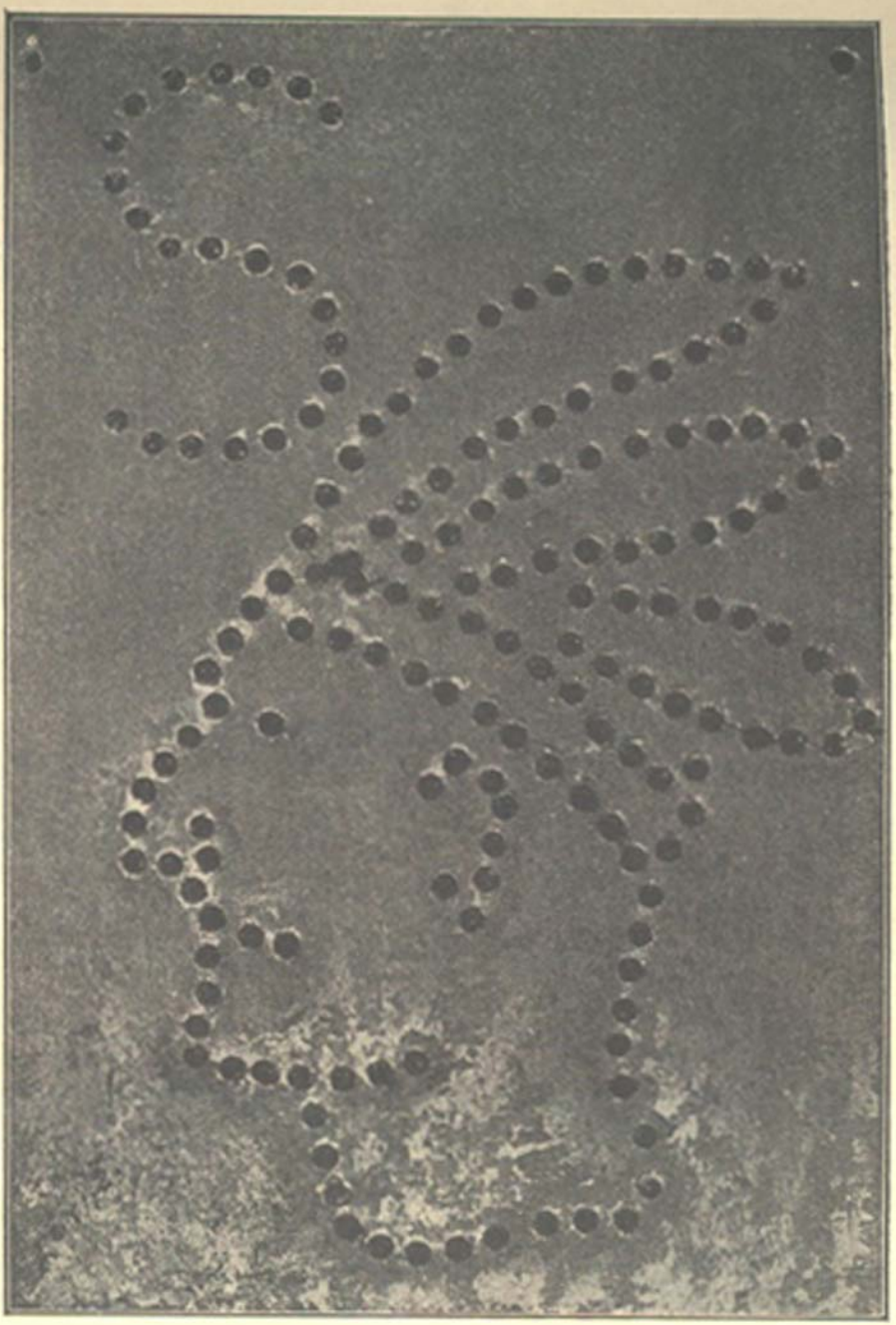


EMPTY.

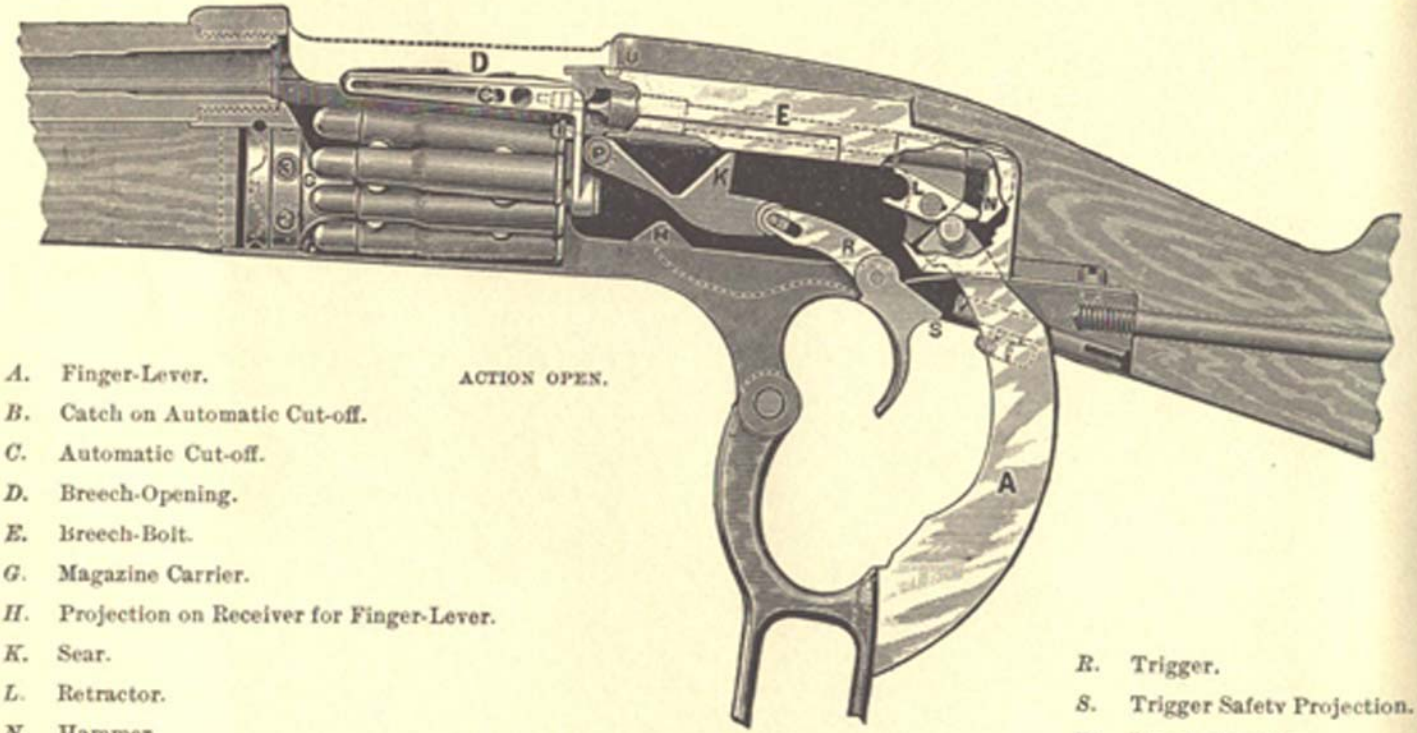


FULL.

SAVAGE rifles can also be furnished to take the 30-30 smokeless cartridges, if so ordered.



This steel plate is $\frac{1}{16}$ inch thick. The perforations were made by the .303 expanding bullet and regular charge of smokeless powder, fired from a Savage magazine rifle at a distance of thirty feet. The holes are one-half inch in diameter, while the bullet is only .303 or about .30 caliber: this is caused by the expanding of the bullet on the first impact. The penetration of the regular metal covered bullet in pine is about 50 inches.



ACTION OPEN.

A. Finger-Lever.
B. Catch on Automatic Cut-off.
C. Automatic Cut-off.
D. Breech-Opening.
E. Breech-Bolt.
G. Magazine Carrier.
H. Projection on Receiver for Finger-Lever.
K. Sear.
L. Retractor.
N. Hammer.
P. Sear Screw.
R. Trigger.
S. Trigger Safetv Projection.
U. Recoil Shoulder.
V. Trigger and Lever Lock.

LOADING OF THE SYSTEM.

The magazine is charged while the system is open. Open the Finger-Lever *A* to fullest extent (see preceding cut). Insert cartridges into the magazine by pushing them (heads to rear) down, and under the Catch *B* on Automatic Cut-off *C*. The thumb or fore-finger of the right hand should be used in this operation (see cut, page 22).

The capacity of the magazine is five cartridges. A sixth cartridge can be placed in the breech-opening *D* above the catch *B*. On closing the Finger-Lever *A*, the cartridge in the breech-opening *D* will be carried forward by the Breech-Bolt *E* into the chamber of the barrel. The rifle is then ready to fire.

THE RIFLE AS A SINGLE LOADER.

The act of placing a cartridge into the breech-opening *D* forces the Automatic Cut-off *C* back into its recess in the Receiver, retiring the uppermost cartridge in the magazine below the line of movement of the Breech-Bolt *E*, so that only the cartridge in the breech-opening will be engaged by the breech-bolt on its forward travel.

THE RIFLE AS A MAGAZINE GUN.

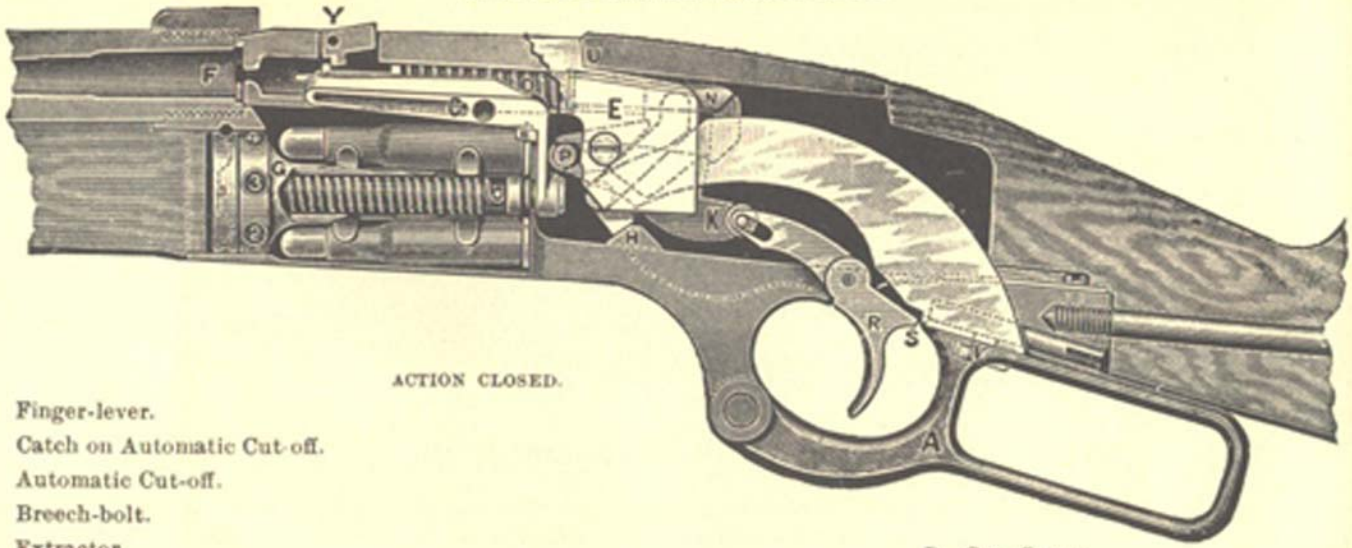
If the operator does not place a cartridge in the breech-opening *D*, and there are one or more cartridges in the magazine, the Breech-bolt *E* on its forward travel will engage and carry forward into the barrel chamber the uppermost cartridge in the magazine.

The Automatic Cut-off *C* has on its face a projection *T* which ejects the fired shells, after being withdrawn by the Extractor *F* on the Breech-bolt *E*.

LOADING MAGAZINE, MAGAZINE ACTION.

If it is desired to have the cartridges in the magazine and none in the chamber of the barrel, load one or more cartridges into the magazine, press with the finger of the left hand the Automatic Cut-off *C* back into its recess, keeping it back while the Finger-lever *A* operates the Breech-bolt *E* forward and beyond the point of engagement with the cartridge head in the magazine. Complete the closing of the action.

SAVAGE RIFLE, Model 1899.



ACTION CLOSED.

A. Finger-lever.
B. Catch on Automatic Cut-off.
C. Automatic Cut-off.
E. Breech-bolt.
F. Extractor.
G. Magazine Carrier.
H. Projection on Receiver for Finger-lever.
K. Sear.
N. Hammer.
O. Main Spring.
P. Sear Screw.
R. Trigger.
S. Trigger Safety Projection.
U. Recoil Shoulder.
V. Trigger and Lever Lock.
Y. Indicator.

Model Rifle 1899 is manufactured with the new hammer indicator.

When the hammer is at full cock, the Indicator *Y* projects above the Breech-bolt; when the rifle is fired or the hammer is down, the indicator is flush with the top of the Breech-bolt.

When the action is closed, or the finger pressing back the Automatic Cut-off *C* into its recess, the numerals on the Magazine Carrier *G* show, through the opening in the receiver, the number of cartridges contained in the magazine.

The Breech-bolt *E* is positively operated by the Finger-lever *A*, without any intermediate mechanism, and when closed ready for firing, is immovably locked by the Finger-lever *A* resting on a solid projection at *H* in the receiver. The recoil of the discharge is supported at *U* and is in the direct line of the strain.

The Breech-bolt *E* carries the extractor *F*, Retractor *L*, Hammer *N*, Main Spring *O*, and Indicator *Y*.

FIRING AND SAFETY MECHANISM.

The firing mechanism is operated as follows: If the rifle has been fired, the act of opening the Finger-lever *A*, and thereby Breech-bolt *E*, rocks the Retractor *L* by engagement with the Sear Pin *P*, and the Hammer *N* (with firing pin) is positively retracted and held back from the face of the Breech-bolt *E*. The closing movement of the Breech-bolt brings the Hammer *N* in engagement with the face of the Sear *K*, compressing the Main Spring *O*, and the rifle is fully cocked.

PREMATURE EXPLOSIONS ARE IMPOSSIBLE.

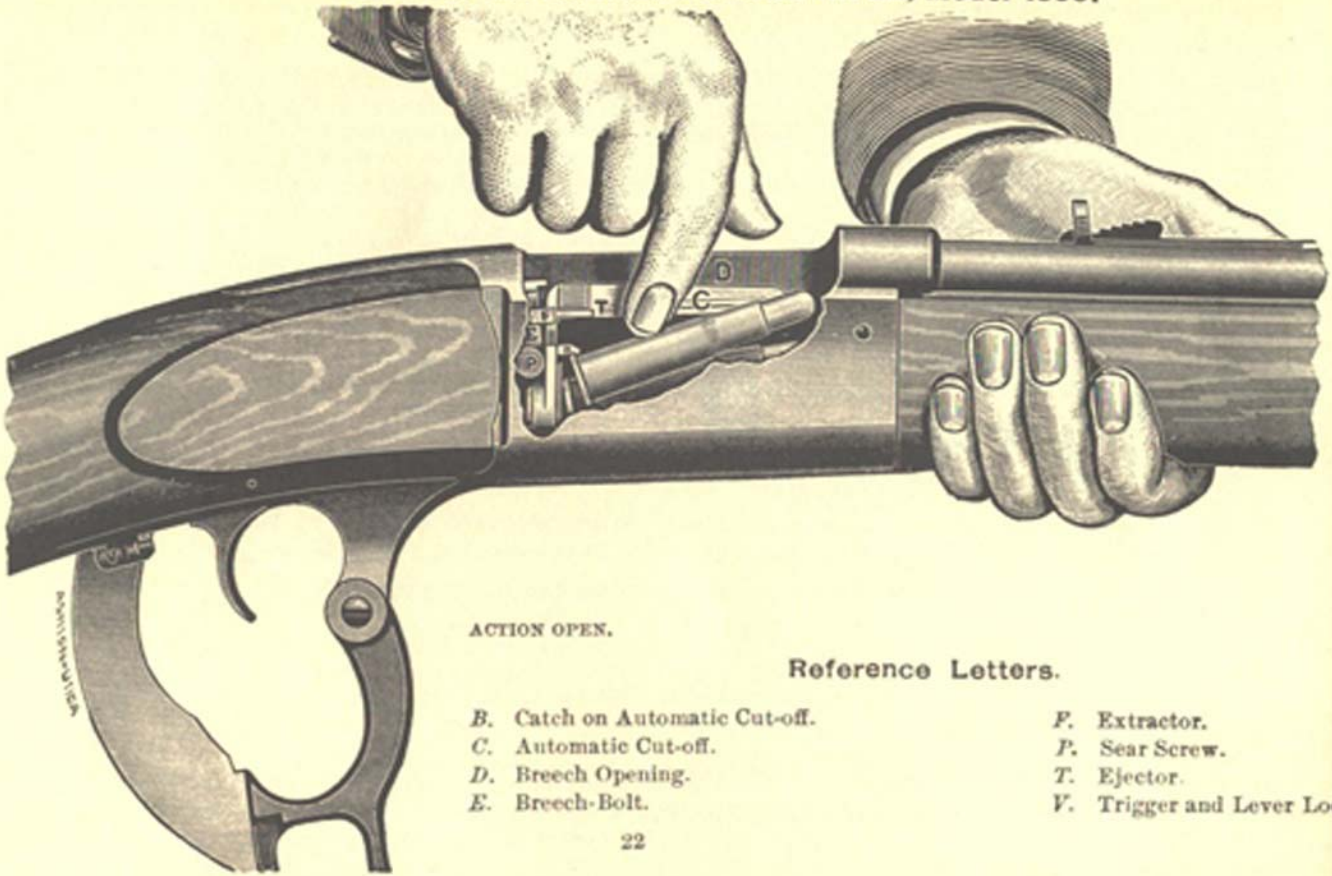
The firing mechanism can be placed in an uncocked position by holding back the Trigger R while closing the Finger-lever A. The Hammer N will in that case pass over, and not engage with the face of the Sear K.

This should always be done when laying the rifle aside, and the trigger should not be snapped when the chamber of the barrel is empty.

The action can be locked by pushing forward the Lock *V*, which locks the trigger and lever.

The Indicator *Y* shows the position of the firing mechanism.

LOADING MAGAZINE, SAVAGE RIFLE, Model 1899.



ACTION OPEN.

Reference Letters.

B. Catch on Automatic Cut-off.
C. Automatic Cut-off.
D. Breech Opening.
E. Breech-Bolt.
F. Extractor.
P. Sear Screw.
T. Ejector.
V. Trigger and Lever Lock.

TO DISMOUNT THE SAVAGE RIFLE, Model 1899.

It will not be found necessary to dismount the entire mechanism for the purpose of cleaning the rifle. When the butt-stock is removed, most of the mechanism will be in plain view and can be oiled without further dismounting.

If necessary the magazine mechanism can be removed independently of the other parts.

Dismounting: Remove the butt-plate, the butt-stock screw and butt-stock; open the finger-lever to fullest extent; remove the trigger spring-screw, trigger spring, bolt-stop screw and bolt stop; remove the finger-lever, bushing screw, push out the finger-lever bushing; displace the finger-lever at pivot joint; withdraw the breech-bolt; remove trigger-pin, punching the same out from left to right; remove the sear screw; take out the sear and trigger; take out the finger-lever, remove the trigger and lever-lock; remove the fore-stock screw and fore-stock, unscrew the magazine spindle screw and remove it free from receiver; remove the magazine carrier and magazine spindle, and then remove automatic cut-off and spring.

TO DISMOUNT THE BREECH-BOLT.

Remove the hammer bushing screw, pull out the hammer with the main spring, hammer indicator washer and bushing, turning the hammer to clear the indicator, punch out the firing pin securing pin, unscrew the firing pin and remove the retractor screw.

Punch out the extractor pin from top to bottom; the extractor will then be free. Punch out the hammer indicator pin and the indicator will then be free.

To separate the magazine spindle and the magazine carrier, pull the magazine spindle out of the magazine carrier; the magazine spring can then be removed.

TO ASSEMBLE THE SAVAGE RIFLE, Model 1899.

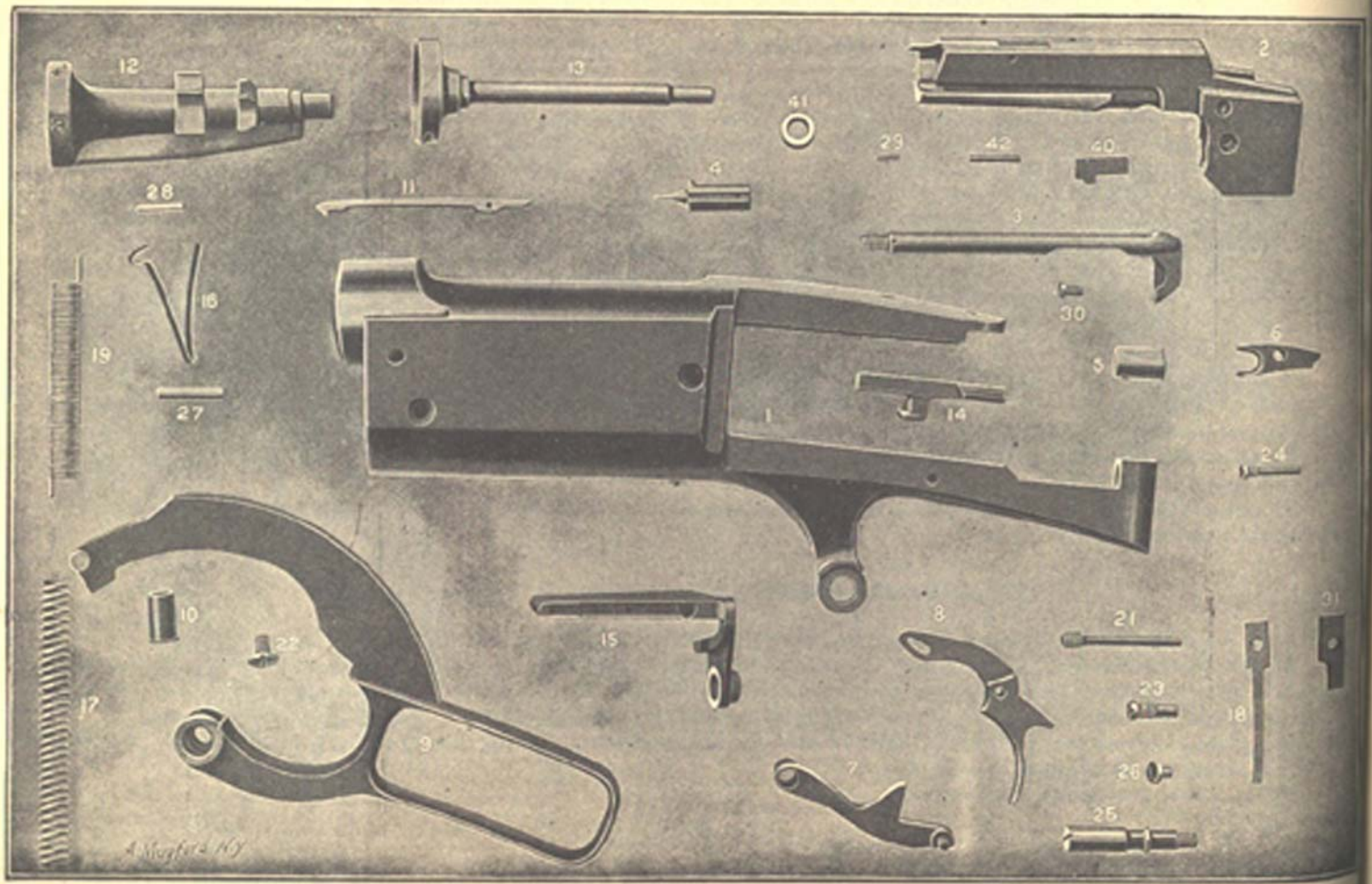
Replace the parts in the reverse order from that given for dismounting, keeping in mind the following points:

Replace automatic cut-off and the spring. Replace the magazine carrier, magazine spindle, and magazine spring together, and give tension to magazine carrier by turning the spindle, with a screw-driver, from right to left. Insert the spindle screw. Do not give too high a tension to magazine spring, as it will make the loading of cartridges into the magazine unnecessarily hard.

In replacing the retractor in the breech-bolt, be sure that the retractor is in retracting position, (as shown at L, page 18), before replacing the hammer and breech-bolt.

NOTE: Model 1895 has a retractor spring.

COMPONENT PARTS OF SAVAGE HAMMERLESS REPEATING RIFLE, .303 Caliber. Model 1899.



PRICE LIST OF COMPONENT PARTS, Model 1899.

No.			
	1	Receiver,	$7.00
	2	Breech-bolt,	3.00
	3	Hammer,	.60
	4	Firing Pin,	.40
	5	Hammer Bushing,	.15
	6	Hammer Retractor,	.30
	7	Sear,	.40
	8	Trigger,	.40
	9	Finger-lever,	1.75
	10	Finger-lever Bushing,	.25
	11	Extractor,	.30
	12	Magazine Carrier,	1.00
	13	Magazine Spindle,	.50
	14	Trigger and Lever Lock,	.50
	15	Automatic Cut-off,	2.00
	16	Automatic Cut-off Spring,	.25
	17	Main Spring,	.30
	18	Trigger Spring,	.20
	19	Magazine Spring,	.30
	20	Barrel Stud,	.25
	21	Magazine Spindle Screw,	.15
	22	Finger-lever Bushing Screw,	.15
	23	Hammer Retractor Screw,	.10
	24	Hammer Bushing Screw,	.10
No.	25	Sear Screw,	$ .30
	26	Trigger Spring Screw,	.05
	27	Trigger Pin,	.05
	28	Extractor Pin,	.05
	29	Firing Pin, Securing Pin,	.05
	30	Bolt Stop Screw,	.05
	31	Bolt Stop,	.10
	32	Barrel (Round),	9.00
	32A	Barrel (Octagon),	10.50
	32B	Barrel (Half Octagon),	10.50
	33	Butt Stock,	2.00
	34	Butt Stock Screw,	.25
	35	Butt Plate (Rifle),	.80
	35A	Butt Plate (Shot Gun),	.30
	36	Butt Plate Screws (2), each,	.05
	37	Fore-arm,	1.00
	38	Fore-arm Screw,	.05
	39	Fore-arm Washer,	.10
	40	Hammer Indicator,	.40
	41	Hammer Indicator Washer,	.10
	42	Hammer Indicator Pin,	.05
		Hammer Retractor Spring for Model 1895,	.20
	43	Ctg. Stop (Small projecting part on top of Breech-bolt),	.25

In ordering give the name and number of the part.

NOTE—In ordering Butt Stocks or Fore-arms, mention if octagon or round fore-arm, and if rifle, carbine or shot-gun butt is required.

Savage Rifle.

EXTRAS.

Barrels can not be supplied longer than 30 inches. Additional length over standard per inch,	$ 1.00
Fancy American Walnut Stock and Fore-arm,	5.00
Fancy English Walnut Stock and Fore-arm,	10.00
Fancy Circassian Walnut Stock and Fore-arm,	15.00
Checking Butt Stock and Fore-arm (Style as shown on page 4),	5.00
Checking Butt Stock and Fore-arm (Style as shown on page 6),	8.00
Nickel-plated Trimmings,	2.50
Full Nickel Plating, except barrel,	4.00
Silver-plated Trimmings,	4.00
Full Silver Plating, except barrel,	$10.00
Gold-plated Trimmings,	10.00
Full Gold Plating, except barrel,	22.00
Matted Barrels,	5.00
Extra finish on ordinary stock,	2.00
Swivel and sling strap,	1.00
Leaving off rear sight slot,	1.00
Changing position rear sight slot,	1.00
Cheek Piece,	6.00
Pistol Grip,	5.00
Altering length of butt stock or drop (See page 27),	10.00

ENGRAVING.

Grade A. Page 3,	$ 5.00
Grade B. " 4,	10.00
Grade C. " 5,	20.00
Grade D. " 6,	30.00
Grade E. Page 7,	$ 40.00
Grade F. " 8,	50.00
Grade G. " 9, and as shown on back cover,	130.00
Name and Scroll,	2.00

SUNDRIES.

Canvas Covers,	$ .75
Canvas Covers, leather bound,	1.90
Pliable Leather Cover,	3.00
Solid Leather Case,	5.00
Carbine Holster,	2.00
Cartridge Belt,	1.00
Brass Cleaning Rod,	.30
Brass Cleaning Rod, with revolving handle,	$ .50
Brass Cleaning Rod, revolving handle, jointed,	.50
Brass Wire Cleaning Brush,	.25
Hickory Cleaning Rod,	.10
Field Cleaner,	.50
"Three in One," per bottle (See page 28),	.25
.303 Savage Gun Grease, per tube (See page 28),	.15

Important Information.

Rifles should always be properly cleaned and oiled before laying aside.

To perfectly clean the inside of the barrel, take small square pieces of cotton rag, dip in water and push or pull through the bore, using a wood or brass rod, or cord; this should be repeated until the rag comes through without being soiled; next put through several pieces of dry rag, until all the moisture is absorbed; finish with an oily rag.

If the inside of the barrel becomes rusted or leaded, fire a few regular cartridges and clean with rag and oil.

The other metal parts of the rifle need only wiping off with a clean, dry rag, finishing with an oily one.

The rifle, after being handled or fired, should always be wiped off and oiled before laying aside, otherwise rust will form on the metal parts from the moisture of the hands.

Never shoot a rifle when there is any obstruction in the barrel; it is almost certain to form a bulging ring at the point where the obstruction was, thereby utterly destroying the accuracy of the barrel, or the barrel may even burst.

In testing a rifle for accuracy, never fasten it in a vise; it is not possible to get accurate shooting by that means. The best way is to rest the rifle on bags filled with sand, taking an easy resting position with the body and arms.

Do not condemn a rifle because of occasional misfires; the trouble may be due to defective primers. Care should be taken not to use thick oil in the main spring hole in the breech-bolt, as it is liable to clog the action of the spring and firing pin.

In very cold temperature all oil and grease should be wiped from the main spring, firing pin and action, as the best oil is liable to freeze. Misfires sometimes occur from this cause.

Bullets, however fast their velocity, are subject to the law of gravity, and from the moment they leave the muzzle of the barrel they fall, during the first second, 16 feet and a fraction. At a distance of 200 yards, a bullet fired from a Savage Rifle with a full charge of No. 1 powder, will fall a few inches. This is what is meant by point blank range for hunting.

Rifles, unless specially ordered, are not sighted for accuracy before leaving the factory. The sights are adjustable. Experience shows that shooters do not look through sights exactly the same. However closely the sights may be adjusted for one shooter, it will generally be found necessary to alter the sights somewhat to give perfect satisfaction to another user of the rifle.

To knock the front or middle sight over to one side, all that is necessary is a small piece of hard wood or brass and a hammer.

The standard measurements of the stocks are as follows:

Length from rear of butt-plate to front of trigger, 13 inches.
Drop of stock at comb, $1\frac{3}{4}$ inches.
Drop of heel, 3 inches.

Any change from these measurements necessitates manufacturing the stock from the block without the aid of machinery and is expensive work. The charge is $10.00.

It is possible to convert the 1895 model into the 1899 model, for which there is a charge of $5.00. This change necessitates a new breech-bolt, hammer indicator, sear, firing pin, hammer, extractor and retractor.

The steel used in the Savage rifle barrels is of the finest possible quality. Every batch, technically known as a "heat," is tested by the Government tester at Watertown Arsenal. The tensile strength averages 115,000 pounds to the square inch, and the elastic limit 75,000 pounds to the square inch. The steel is manufactured by the well-known firm of Spaulding & Jennings of Jersey City, N. J., who supply large quantities to the United States Government for rifle barrels.

Drift is the term applied to any deviation from the vertical or horizontal planes of fire, other than that caused directly by the force of gravity.

Drift is occasioned by the resistance of the air, and the amount and direction is influenced by the twist of the rifling and velocity and form of the bullet. This results in bullets of different construction and weight, and with different charges, shooting to the right or left.

In reloading Savage ammunition, care should be taken not to overcharge, especially the paper patched and miniature lead bullets. If even one grain is used over the regular loads, these bullets are liable to strip and shoot wildly.

SAVAGE GUN GREASE, and Rust Repeller.

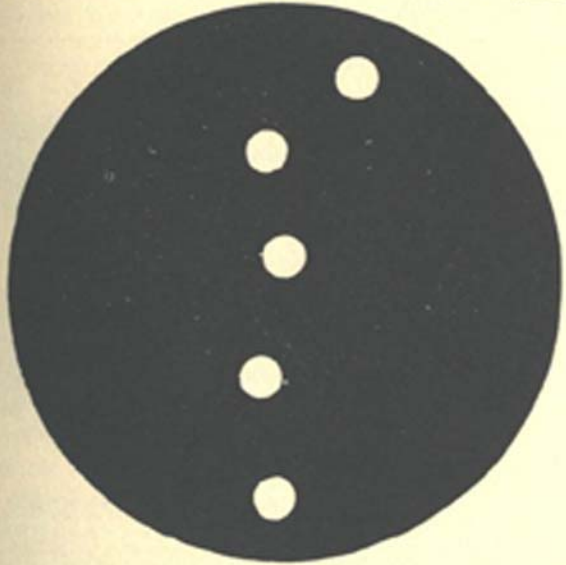
Price, per tube, ... 15 cents

THREE IN ONE Gun Oil,
Lubricates, Cleans, and Repels Rust.

Price, 3 oz. bottle, 25 cents.

Targets Made with Savage Rifle.

Point blank range. Sights not altered to shoot up to 200 yards.

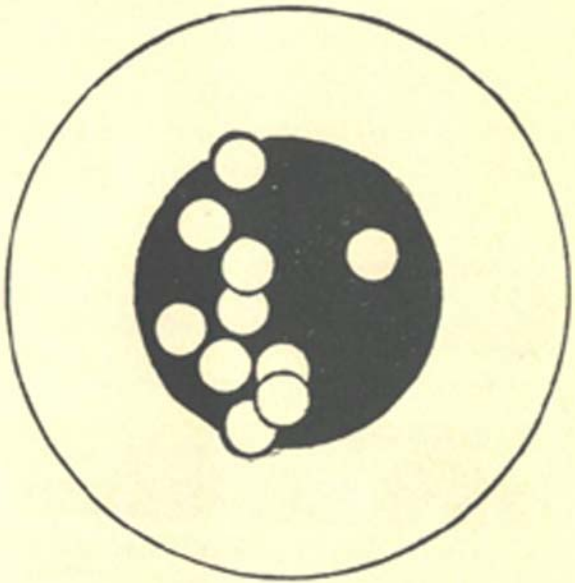


50 yards.
75 "
100 "
150 "
200 "

Regulation 8-inch bull's-eye.
Shots at 50, 75, 100, 150 and 200 yards.

The marksman fired the first shot at 50 yards, then walked back to 75, 100, 150 and 200 yards, firing a shot at each distance, and *without altering the sights* or *calculating* the different distances.

Regular Bullet Cartridge, No. 1.



Ten shots at 100 yards. Actual size bull's-eye.
Miniature Lead Bullet Cartridge, No 4.

Savage Cartridges.

CALIBER .303. CASES CONTAIN 1,000 CARTRIDGES.

Cartridges are packed 20 in a box.

It is not always necessary to use long-range cartridges in the Savage rifle; Cartridges Nos. 4 and 6 are excellent for short range or small game.

1

REGULAR SMOKELESS POWDER CARTRIDGE.

REGULAR BULLET.
Lead, with Nickel Cover.

2

EXPANDING SMOKELESS POWDER CARTRIDGE.

EXPANDING BULLET.
Lead, with Partial Nickel Cover.

3

BLACK POWDER CARTRIDGE.

REGULAR BULLET.
Lead, with Nickel Cover.

Cartridge.	Price per M Loaded Cartridges.	Price per M Bullets.	Price per M Primed Shells.	Price per M Primers No. 84.	Grains Powder.	Grains Bullet.	Grains Complete Cartridge.
	$ c.	$ c	$ c.	$ c.			
Regular	38.00	10.50	18.50	1.50	22	180	375
Expanding	38.00	10.50	18.50	1.50	22	185	380
Black	32.00	10.50	18.50	1.50	40 Black	180	393

For short ranges and in places where it would not be safe to fire full charges, use Nos. 4 and 6.

			Cartridge.	Price per M Loaded Cartridges.	Price per M Bullets.	Price per M Primed Shells.	Price per M Primers, No. 84.	Grains Powder.	Grains Bullet.	Grains complete Cartridge.
				$ c.	$ c.	$ c.	$ c.			
4	MINIATURE SMOKELESS CARTRIDGE. Grooved Shell.	MINIATURE BULLET. Lead.	Miniature.	30.00	3.00	18.50	1.50	6	100	272
6	PAPER PATCHED SCHUETZEN TARGET CARTRIDGE.	PAPER PATCHED BULLET. Lead.	Paper Patched.	38.00	10.00	18.50	1.50	12	185	372
6	MINIATURE METAL COVERED CARTRIDGE.	MIN. METAL COVERED BULLET. Lead, with metal cover.	Miniature Metal Covered.	32.00	7.00	18.50	1.50	12	100	282

All the above six Cartridges can be used in the .303 Savage Magazine Rifle or the Savage Carbine without any change being made in the arm. The metal coverings of the different bullets are made of a soft alloy, which does not injure or wear the rifling of the barrel.

Description of Savage .303 Caliber Cartridges.

No. 1. **Regular Cartridge,** with completely metal-covered bullet; designed for long-range target shooting; is well adapted for wild geese shooting. The metal cover will not rupture on striking flesh or wood. Its penetration is about 50 inches in clear white pine. Range, 2,000 yards.

Savage bullets will not wear the rifling of the barrel. The jackets of the bullets of No. 1, No. 2 and No. 3 cartridges are composed of an alloy of nickel and copper. No steel is used. Seven thousand No. 1 cartridges have been fired in a Savage rifle without showing any signs of injury to the rifling.

No. 2. **Expanding Cartridge.** For big game. Its high velocity, soft-nosed, expanding bullet makes it more effective than the largest black-powder cartridge. Range, 2,000 yards. Point blank sporting range for hunting, 225 yards. This bullet will expand upon striking flesh.

BEFORE EXPANDING.

Its penetration is about ten inches in clear white pine, making a very large hole.

AFTER EXPANDING.

Penetration in steel, see page 17.

For effectiveness, see page 46.

No. 3. **Black Powder Cartridge.** A medium range cartridge. Accurate up to 600 yards. The regular bullet is used. Black powder can be used in all Savage cartridges; 40 grains being as much as the shell will hold.

Full sized lead bullets can not be used with a shell full of black powder, or any of the charges of smokeless powder, as the quick twist of the rifling strips the lead, even when of hard alloy.

No. 4. **Miniature Cartridge.** This cartridge, with its small miniature lead bullet, is very accurate up to 100 yards. It is suitable for small game or short range target shooting. Cost of re-loading, one-half cent. The shells can be re-loaded indefinitely. No wadding or filling of any kind is used between the powder and bul et; 6 grains of Savage No. 1, '99 Model, Smokeless Powder is the charge; 10 grains of black powder can also be used instead of the smokeless. This miniature lead bullet must not be crimped. Barrel should be kept well cleaned when using this cartridge.

No. 5. **Paper-patched Bullet Cartridge.** Designed for regular target shooting up to 200 yards. Not to be crimped.

Information on mould, page 43. Patches, page 43.

No. 6. **Miniature Metal-Covered Bullet Cartridge.** A suitable cartridge for short-range target-shooting. The Miniature shell is used, and the metal-covered bullet must be strongly crimped.

This cartridge makes excellent targets at two hundred yards. It is very clean, as the jacket on the bullet prevents leading of the barrel.

The load for this cartridge is ten to twelve grains of our No. 1, Model 1899, smokeless powder. Shells can be reloaded a number of times with this charge.

LUBRICATED WIRE-PATCHED BULLET CARTRIDGE.

Loaded Cartridges, Price $38.00 per thousand.
Bullets, " 10.50 " "

This bullet is wound with Lubricated Fiber-Covered Wire. These bullets can be had in 160, 180 and 200 grains weight. The powder charge is eighteen grains of the No. 1, 1899 Model Savage Powder. The bullet expands in flesh and makes a very accurate cartridge. It can be used with forty grains of black powder.

The different cartridges mentioned above can be used in the same .303 Savage Magazine Rifle or Carbine without any change or adjustment whatever.

RELOADING SMOKELESS POWDER CARTRIDGES.

Savage shells can be reloaded a number of times according to the charge. In full charges the pressure is considerably more than from black powder; the shells therefore will not last as long. Another cause for their shorter life is the action of the mercurial gases from the fulminate of the mercury used in the primers. Smokeless powder requires a stronger primer and therefore more of the fulminate than is used in primers for black powder. This mercurial gas acts on the zinc in the composition of the brass, thereby causing disintegration of the metal.

POINT BLANK RANGE.

Bullets, however fast their velocity, are subject to the law of gravity, and from the moment they leave the muzzle of the barrel, they fall, during the first second, 16 feet and a fraction. At a distance of 200 yards, a bullet fired from a Savage rifle, with a full charge of No. 1 powder, will fall a few inches. This is what is meant by point blank range for hunting.

Advantages of the Savage System.

Breech. 1. Strong, safe, solid breech-bolt. Recoil supported in direct line of fire.

Gas. 2. No powder gas can escape to the rear of the breech mechanism to injure the eye of the operator in the event of a broken primer, or defective shell. The operator is protected by a solid wall of steel.

Extractor. 3. Positive, multiplied extracting power.

Ejector. 4. Positive ejector; shells ejected to the side of the operator and away from his face.

Safe. 5. The very important necessity of **safety to the operator** should never be overlooked. The Savage is the only repeating sporting rifle on the market that **has no open communication to the rear.** An excessive charge of high explosive can be fired in any rifle sufficient to destroy the barrel, but the operator using the Savage can not be injured.

THE ACTION CAN NOT BE BLOWN OPEN.

Cartridges can not be fired until the breech mechanism is absolutely closed and safely locked.

6. The entire system, trigger, finger-lever, breech-bolt, etc, is locked by operating the trigger and lever-lock.

The Only Hammerless Repeating Rifle. 7. No moving hammer to distract the aim of the operator. The rifle has no projecting hammer to become caught, and thereby cause accidents.

8. The position of the firing mechanism is always shown by an automatic indicator.

Simplicity. 9. Few springs and component parts.

Weight. 10. Light weight.

Action. 11. Easy, smooth, short action; the balance and aim of the rifle is not disturbed while firing the magazine cartridges.

Rapidity. 12. The rifle can be easily and accurately operated from the shoulder position. The enclosed hammer is cocked by the closing movement of the finger-lever, thus pressing the rifle to the shoulder and steadying the aim.

Finger-Lever. 13 The concentric arm of the finger-lever always protects the trigger and prevents it from being caught and operated accidentally.

Single-Loader. 14. Rapid single loader; can be operated independently of the magazine.

Magazine Indicator is a Positive Advantage.

15. Cartridges in the magazine are always automatically indicated by numerals.
16. The magazine cartridges are inside of, and protected by, the steel walls of the receiver.
17. Cartridges in the magazine are held from end thrust by their rims; no upsetting or displacing of the bullets from end thrust, through shock of firing or handling; no compressing of the powder in the shells.
18. Cartridges in the magazine lie separated, side by side, and no bullets touch the primers of other cartridges. Safety is thus secured.
19. The magazine can be left loaded while the barrel chamber of the rifle is empty, and cartridges in the magazine are in readiness for use by operating the finger-lever.

Automatic Cut-Off.

20. Cartridges in the magazine are automatically held in reserve while using the rifle as a single loader.

Bullets.

21. Metal-covered bullets give greater penetration than ordinary lead bullets.

Powder.

22. Either black or smokeless powder can be used in these rifles.

Smokeless Powder.

23. The aim of the operator is not obscured, and location of operator not detected by any smoke.
24. Less recoil and noise than black powder.
25. Non-fouling of the barrel, and the rifle is accurate after repeated firing.
26. Greatly increased penetration over black powder.
27. Extremely long range.
28. Light-weight ammunition.
29. High velocity and consequently flat trajectory. Velocity 2,000 feet per second; point-blank range within hunting distances.
30. No corrosion of shells after firing. Shells need no cleaning for reloading.

Miniature.

31. By using short lead bullets and small powder charge, a cheap cartridge is produced suitable for gallery practice or shooting small game.

Expanding Bullets.

32. Soft nose expanding bullets are effective for the biggest game.

Perfect balance of the rifle, simplicity and easy working of the action is unsurpassed, while the **absence of all knobs, protuberances or magazine below the line of the frame,** commands universal commendation, the arm being very handsome and symmetrical in appearance.

Savage Rifle Powder.

No. 1, 1899 MODEL.

Price Per Pound Can, $1.50.

This powder is the new No. 1, 1899 Model, Savage Powder, and all Savage .303 Cartridges, including the little lead miniature bullet No. 4 Cartridge, can be reloaded with this powder. The charges are as follows:

No. 1,	Regular Bullet, smokeless cartridge,	22 grains
No. 2,	Expanding Bullet, smokeless cartridge,	22 "
No. 4,	Lead Bullet, miniature smokeless cartridge,	6 "
No. 5,	Paper Patched Bullet, smokeless cartridge,	12 "
No. 6,	Miniature Metal Covered Bullet, smokeless cartridge,	10 or 12 "

Lubricated Wire Patched Bullet cartridge, 18 grains. Sweep the top of the measure straight across.

The Savage Arms Company guarantees that the Savage smokeless powder will not freeze or deteriorate in the lowest temperature.

Misfires are liable to occur during extreme cold weather when *too much oil* has been used in the mechanism. Care should be taken to wipe all oil and grease from the firing pin, main spring in the breech bolt, and all enclosed mechanism, when the thermometer registers below zero.

Savage smokeless powder contains no nitro-glycerine or other corrosive, deleterious or unstaple substances. It will be found thoroughly reliable, producing uniform pressure and decreased recoil with high velocities.

CAUTION!

In using smokeless powders the directions MUST be followed carefully. We will not be responsible for mistakes from overcharges, or the use of powders not recommended by us.

There is a great variety of smokeless powders manufactured and for different purposes; what is right for the shotgun will not be for the rifle, and what is correct for the large-caliber rifle will not be for the smaller-caliber rifle or pistol. A certain quantity of one smokeless powder may be safe and the same quantity of another smokeless powder may destroy any rifle.

Full charges of smokeless powder are much harder on shells than black powder, and they can not be reloaded many times without trouble from splitting or breaking.

Orders for Nos. 1 and 2 powders will be filled with the No. 1, 1899 Model, smokeless powder, which takes the place of the two old Savage powders.

The Savage Rifle is guaranteed only when used with ammunition manufactured and loaded by the Savage Arms Company.

Advantages of Smokeless Powder.

The absence of smoke enables the operator to lie concealed and retain an unobstructed view of the game or the enemy. Several varieties of smokeless powder do not even emit a flash in the darkest night.

The longer range gives the soldier or sportsman using smokeless powder an immense advantage over those using black powder guns and ammunition; while the greater penetration makes the small bullet extremely effective. Steel boiler plate, equal in strength and thickness to the material employed in the construction of torpedo boats, is easily perforated by modern small arms using smokeless powder ammunition.

The extremely high velocity is obtained by the slow combustion of smokeless powder, which continues its expelling action, accelerating the speed of the projectile, until it leaves the muzzle of the gun. The slow—comparatively speaking—action of the new explosive accounts for the fact that, although the force and speed of the new bullet are so much higher than the old lead bullet in front of black powder, there is about 45 per cent less recoil.

Those firing the "Savage Rifle" experience no inconvenience from recoil in using cartridges loaded with smokeless powder.

The velocity of the bullet being 2,000 feet per second, as against from 1,100 to 1,400 feet per second in heavily-loaded black-powder cartridges, gives so flat a trajectory that for hunting distances up to 225 yards, rifle sights need not be raised.

The non-fouling of the barrel can be appreciated by all sportsmen; hundreds of shots can be fired without the necessity of cleaning the bore. The barrel of any rifle should, of course, be properly cleaned and oiled before laying the weapon aside.

It was at first supposed, and in fact used as an argument in favor of adopting the small-caliber bullets with their high velocity, that they would more often wound than kill the enemy, thereby crippling his movements, but facts have not borne out the supposition.

The largest game in the world, the royal Bengal tiger of India, the elephant and the rhinocerous of Central Africa, are now being successfully hunted and slain by men using the .303 caliber Savage rifles. Sportsmen who have never tried the small-caliber rifles and smokeless powder ammunition are somewhat skeptical as regards the killing or stopping power of the small metal-covered expanding bullets. These are far more deadly than black-powder ammunition, however large the caliber. The secret of the deadly effect of these small projectiles lies in their expanding qualities and extraordinary high velocity, which impart a percentage of their energy to the otherwise inert flesh and bone; and these substances, being acted upon by so quick a blow, become themselves projectiles, following a well-known mechanical law, lacerating the surrounding tissues and bone, and leaving a path of destruction which is widened by resistance encountered by the bullet.

The conjunction of small-caliber metal-covered bullet and the smokeless powder is necessary to secure high velocity. The high velocity resulting from the use of smokeless powder is only possible when confined by the small calibers. If a bullet is omitted from one of these cartridges and the primer struck, no explosion of the powder will occur. The small diameter of the bullet makes it necessary to lengthen the same, in order to secure sufficient weight. The sharp pitch of the rifling, one turn in 10 inches, is necessary to keep the point of the bullet end on and prevent key-holing.

The rapid twist of the rifling and the great pressure of smokeless powder compels the use of some less yielding metal than lead, as a soft lead bullet would be blown directly out of the barrel; the bullet would strip. The body of the new bullet is formed of lead, covered with a metal jacket.

SIBLEY COLLEGE,
CORNELL UNIVERSITY.

Department of Experimental Engineering,
R. C. CARPENTER,
ITHACA, N. Y., Nov. 8, 1898.

SAVAGE ARMS COMPANY,
Utica, N. Y.

Gentlemen:—I have the pleasure of reporting the following as the result of tests of cartridges for 0.303 caliber rifle and loaded with smokeless powder by the Savage Arms Company.

The cartridges were fired at the ordinary temperature of the air and also after they had been maintained in a bath of liquid carbonic acid for six hours and had reached a temperature approximating 100 degrees below zero, care being taken to handle the cold cartridges with non-conducting material, and to fire them immediately after removing from the carbonic acid.

In every case the cartridges apparently fired as well when at the extremely low temperature as at an ordinary temperature of the air, although measurements of velocity which were made by firing into a suspended target indicated that the effect of the extreme cold was to reduce the velocity about 7½ per cent.

The target employed was a block of pine 24 inches in length and about 8 inches in diameter suspended in a cast iron fitting and backed with a cast iron plate. In every case the striking energy was sufficient to carry the ball entirely through the wooden block and to reduce it to very small fragments by the impact against the iron plate.

It would seem from these experiments that the powder which is employed in the Savage cartridges could not be frozen so as to sensibly reduce its energy in any temperature likely to be met with by civilized people.

Very truly yours, R. C. CARPENTER,
Prof. of Experimental Engineering.

Sporting and Target Front Sights.

FOR SAVAGE MAGAZINE RIFLE.

No. 1.

Lyman Ivory Bead Front Sight.
Price, $1.00.

No. 2.

Lyman Ivory Hunting Front Sight.
Price, 50 cents.

No. 3.

Lyman's Patent Ivory Bead Wind-Gauge Sight.
Price, $2.50.

No. 4.

Rocky Mountain Front Sight (Knife Edge).
Price, 25 cents.

No. 5.

USED WITH GLOBE.

USED WITH IVORY.

Lyman's Patent Combination Ivory Front Sight.
Price, $1.00.

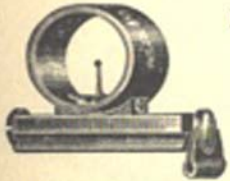
No. 6.

Lyman's Patent "Jack" Sight.
Price, $1.00.

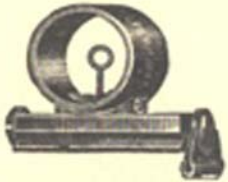
No. 7.

Lyman's Sporting Wind-Gauge Sight.
Price, $3.00.

No. 8.



SHOWING GLOBE.



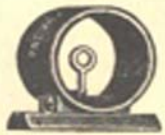
SHOWING APERTURE.

Lyman's Wind Gauge Target Sight.
Price, $3.50.

No. 9.

Sheard Patent Copper Bead Hunting Sight.
Price, $1.50.

No. 10



SHOWING APERTURE.

SHOWING GLOBE.

Lyman's Patent Target Sight.
Price, $1.50.

Sporting and Target Rear Sights.

FOR SAVAGE MAGAZINE RIFLE.

No. 11.

Sporting Leaf Sight.
Price, $1.75.

No. 12.

Leaf Sight.
Price, $1.00.

No. 13.

Express Sight.
Price, $1.50.

No. 15.

Spirit Level.
To fill rear sight slot.
Price, $1.00.

No. 14.

Rocky Mountain Rear Sight (Buckhorn).
Price, 50 cents.

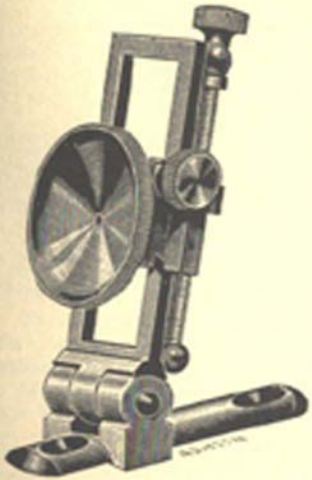
No. 16.

Blank to Fill Rear Sight Slot.
Price, 25 cents.

Sporting and Target Peep Sights.

FOR SAVAGE MAGAZINE RIFLE.

No. 17.

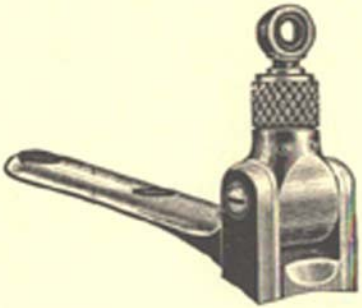


Savage Wind Gauge Peep Sight.

Price, $2.00.

PLACED ON TANG.

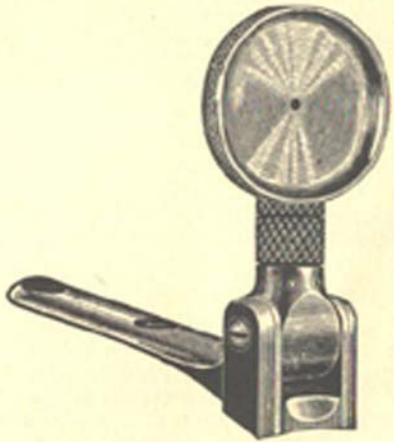
No. 18.



Savage Combination Rear Sight.

Price, $3.00.

No. 19.



Savage Combination Rear Sight with Cup Disc

(Can be used with or without Disc.)

Price, $3.50.

Telescopes for Savage Magazine Rifles.

JULIUS KING OPTICAL CO. TELESCOPE.

Achromatic throughout. Water and dust proof. Always in focus for any range. Field of vision large, flat and highly illuminated throughout. Fitted with non-breakable cross hairs. Encased in non-perforated seamless steel tubing blued to suit the gun.

These 'scopes furnished in nine styles, magnifying powers 3 to 18 diameters, and lengths correspondingly from 14 to 26 inches. The Telescope can also be used as a night glass. Prices, from $10.00 to $30.00.

Mountings are of blued steel, having ball and socket joints eliminating tention and insuring permanency of adjustment. Designed to hold Telescope either on top or side of gun as desired. Do not interfere with ordinary sight when mounted on side. Accurately and quickly adjusted with micrometer scale graduated to $\frac{1}{32}$ of an inch for any range or wind. Mountings, from $3.00 to $15.00. EVERYTHING GUARANTEED THE BEST.

THE JOHN W. SIDLE TELESCOPE.

Specially adapted to repeating rifles, allowing unobstructed use of open sights. All have adjustment to suit different eyes. Price—Telescope with mountings, $10.00 up to $38.00. Mountings, $2.50 to $5.00.

THE DUPLEX RIFLE TELESCOPE SIGHT.

Lawson C. Cummins.

Wide field of vision. High illumination. Achromatic. Seamless brown steel tubes. Price—Telescope with mountings $12 00. All sights are fitted with elevation movement, but the wind-gauge movement is only put in on special order, and costs $3.00 extra.

L. N. MOGG TELESCOPE.

For hunting and target purposes. Prices—Telescope, with mountings, Nos. 1 and 3, $15.00. Mountings, $2.50.

Descriptive catalogues containing full explanations and advantages of above Telescopes sent on application.

SAVAGE ARMS CO., Utica, N. Y.

Savage Ideal Reloading Tools.

FOR SAVAGE .303 MAGAZINE RIFLE.

MODEL '99
Two in One
Measures all kinds of Powders, from
ONE GRAIN
up, for Rifles, Pistols and Shot Guns.

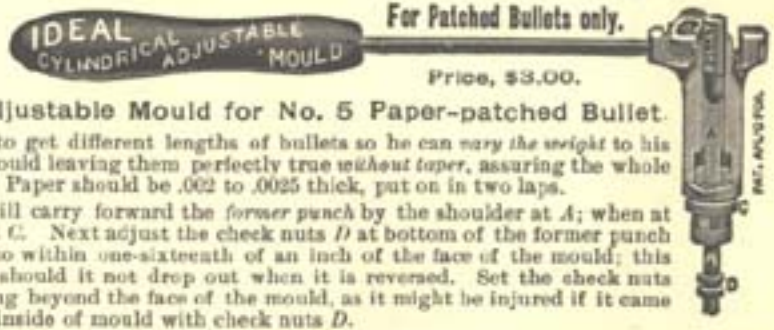
$2.50

The figures in the first column are the graduations on the Ideal Universal measures, Model 1899, which are for grains weight *black powder only.*

The other column is the comparative weights of the Savage Smokeless, No. 1, 1899 Powder, for same bulk measurements as black powder.

LARGE MEASURE
SMALL MEASURE
Graduations on Measures for Black Powder.
Graduations for Savage Smokeless No. 1, Model '99 Powder.

THE "IDEAL" CYLINDRICAL ADJUSTABLE MOULD.



For Patched Bullets only.

Price, $3.00.

"Ideal" Cylindrical Adjustable Mould for No. 5 Paper-patched Bullet.

The adjustable former not only enables the user to get different lengths of bullets so he can *vary the weight* to his desire, but with it the bullets are pushed out of the mould leaving them perfectly true *without taper*, assuring the whole length of the bullet bearing in the barrel of the rifle. Paper should be .002 to .0025 thick, put on in two laps.

To set the Mould, screw in the bushing *B*, which will carry forward the *former punch* by the shoulder at *A*; when at the height desired *securely fasten* it with the check nut *C*. Next adjust the check nuts *D* at bottom of the former punch *A A*, so that the forward end of punch will slide up to within one-sixteenth of an inch of the face of the mould; this will enable the user to push the bullet out of mould should it not drop out when it is reversed. Set the check nuts *securely* to prevent the forward end of punch projecting beyond the face of the mould, as it might be injured if it came in contact with the cut-off; *this it can never do* if kept inside of mould with check nuts *D*.

The Ideal Dipper and Pot should be used to get best results. Should the bullets not drop out of the mould when reversed, do not strike the plunger, as it has a tendency to *upset the bullet and enlarge it.* With the billet of wood used for striking the cut-off, *press* upon the plunger—which will push the bullet out.

Savage Ideal Reloading Tools.

FOR SAVAGE .303 MAGAZINE RIFLE.

"IDEAL" No. 6.

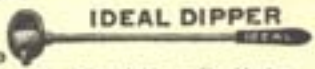
With Regular Cap Extractor and 22 Grain Charge Cup.
Price, $1.75.

Price, $2.00.

Charge Cups. Price, 10 cents each.
For Savage Rifle Powder No. 1, Model 1899.

Charge Cup .	22 grains.	Charge Cup .	10 grains
" "	12 "	" "	6 "

Mould for No. 4 Miniature Lead Bullet.
Price, $1.10.



IDEAL DIPPER
For Moulding Bullets.
Price, 50c.

Special Cover for holding Melting Pot. Will fit any stove.
Price, 50c

Melting Pot, Cast Iron.
Price, 50c.

For No. 3 Tool.
Price, 50c.

With Regular Cap Extractor, 22 Grain Charge Cup, and Regular Chamber A.
Price, $2.50.

Miniature Chamber B. For No. 3 Tool. Price, 50c.

Miniature B. Price, 25c.

Savage Ideal Reloading Tools.

FOR THE SAVAGE .303 MAGAZINE RIFLE.

DESCRIPTION.

The No. 4 Tool will reload the following .303 Savage cartridges:

No. 1, Regular Bullet, smokeless cartridge, . 22 grains
No. 2, Expanding Bullet, smokeless cartridge, . 22 "
No. 6, Miniature Metal Covered Bullet, smokeless cartridge, . . . 10 or 12 grains

When the No. 6 Tool is ordered, regular charge cup (22 grains), and regular cap extractor go with it as part of the tool.

No. 6 Tool crimps.

The No. 3 Tool with the regular chamber A will reload the following .303 Savage cartridges:

No. 1, Regular Bullet, smokeless cartridge, . 22 grains
No. 2, Expanding Bullet, smokeless cartridge, . 22 "
No. 6, Miniature Metal Covered Bullet, smokeless cartridge, . . . 10 or 12 grains

Chamber A crimps.

The No. 3 Tool with the miniature chamber B will reload the following .303 Savage cartridges:

No. 4, Lead Bullet, miniature smokeless cartridge, 6 grains
No. 5, Paper Patched Bullet, smokeless cartridge, 12 grains

Chamber B does not crimp.

When No. 3 Tool is ordered, unless otherwise specified, chamber A, regular charge cup (22 grains), and regular cap extractor go with it as part of the tool.

The No. 3 Tool complete, with regular chamber A, four charge cups, regular cap extractor, miniature chamber B, miniature cap extractor, will load all the Savage cartridges.

The Shell Resizing Tool resizes the entire length of the shell.

All shells should be wiped on the outside with an oiled rag before they are placed in the die. Too much oil will distort the shell.

The Shell Muzzle Sizer resizes only the muzzle of the shell (used on No. 3 Tool).

Miniature Metal Bullets must be seated by hand before crimping.

CAUTION.—In using smokeless powders the directions must be followed carefully. Manufacturers can not be responsible for mistakes from overcharges, or the use of powders not recommended by them.

There is a great variety of smokeless powders manufactured, and for different purposes; what is right for the shotgun may not be for the rifle, and what is correct for the large caliber rifle may not be for the smaller caliber rifle or pistol. A certain quantity of one smokeless powder may be safe, and the same quantity of another smokeless powder may destroy your rifle.

Savage Smokeless Powder, No. 1, 1899 Model, contains no nitro-glycerine or other corrosive, deleterious or unstable substances. It will be found thoroughly reliable, producing uniform pressure and decreased recoil with high velocities.

DO NOT EXPERIMENT.

The Savage Rifle is guaranteed only when used with ammunition manufactured and loaded by the Savage Arms Company.

The Killing Power

OF THE .303 CALIBER SMOKELESS POWDER CARTRIDGES USED IN THE SAVAGE RIFLE

Effect of the Expanding .303 Bullet on Animal Tissues.

Leg of an Ox before being struck by a Savage .303 expanding bullet.

The small .303 caliber expanding bullets, when they first appeared on the market, excited some little derision among old sportsmen and hunters, who had always considered the large caliber bullet necessary to secure effective results on big game. Their experience was only with black powder, and their deductions were correct, under those conditions.

The immensely increased velocity imparted to these small .303 caliber bullets by modern smokeless powder is the secret of the enormous smashing power of the modern small caliber bullet. The soft nose of the expanding bullet expands on impact with the softest tissues, splitting the jacketed portion, deforming the whole bullet to such an extent that the wound made covers a larger area than ever before seen

So rapidly is the knowledge of these facts spreading that by 1905 it will not be necessary to take up space in a catalogue with this information.

Same Leg showing the destructive force of the bullet.

MESSRS. BAKER & HAMILTON,
San Francisco, Cal.

WOOD ISLAND, ALASKA,
Jan. 17, 1899.

Gentlemen:—Referring to the Savage I bought from you last year, it may be of interest to you to know that I have succeeded in killing a whale with the .303 mushroom bullet. I believe that this experience is very exceptional and probably quite different from any testimonials you have received heretofore. In addition to this I have shot other large game. I consider it the best rifle I have ever used, and I have used all kinds of modern repeating rifles and am free to say that I prefer the Savage to any.

Yours very truly,
E. T. EZEKIEL,
Resident Agent North American Commercial Co.

SYRACUSE, N. Y., May 21, 1897.

SAVAGE ARMS CO., UTICA, N. Y.:

Gentlemen—Last fall while on a hunting expedition, I had the pleasure of killing two bull moose with one of your 303 caliber Savage Rifles. The first one I killed on the 25th day of September, 1896. I discovered him swimming across a lake and after a very exciting chase succeeded in getting a shot. He got ashore half a mile away from us and just around a point. When we rounded the point, a few minutes after he had gone in behind it, we discovered him standing on the bank not to exceed sixty yards from the boat. I shot at him. He at once jumped and ran towards the woods, which were about one hundred feet distant. Just as he was about to enter them he fell dead, and when we got to him he had breathed his last. He was shot behind the forward shoulder, the bullet tearing the arteries away close from the heart, tearing his lungs and lodged on the other side, just under the skin, where it could be easily felt. The ball had passed through the ribs and had become flattened out about the size of a twenty-five cent piece. We could not find a drop of blood between the spot where he stood when I shot and where he fell. When we dressed him, however, we found him to be simply a mass of blood inside. This animal was estimated by the guides to weigh 1,000 pounds.

The second one I killed on the 26th day of September, 1896. My guides, who were getting breakfast, discovered him standing across a little bay from our camp, leisurely feeding at the edge of the water. They called me out of my tent and pointed the old fellow out. I went back, got my rifle, and told my wife, who was with me on this trip, what I had seen. After we had all viewed this fine specimen for about five minutes, he turned round broadside and I aimed just over the ridge of his back. I hurriedly estimated the distance to be between three and four hundred yards, and we afterwards found it to be 280. When I shot he jumped and plunged into the woods. After trailing him about half a mile and finding very little blood, we found him dead. The bullet had entered six inches above and three inches back of the heart, and passed out on the other side, making a smaller hole where it passed out than where it entered. It had however shed the metal jacket. The lungs were badly torn to pieces; an internal

Heads of the two moose shot Sept. 25th and 26th, 1896, by Andrew S. White. Each killed with a single shot from a .303 Savage Rifle. See letter above.

hemorrhage had taken place. I used the expansive bullet in every instance. The weight of the second moose was estimated to be between 900 and 1,000 pounds. In both instances the animals were killed with a single bullet.

Assuring you that it gives me great pleasure to be able to give you such a thoroughly satisfactory report of my experience with your rifle, I remain,

Very truly yours,

ANDREW S. WHITE.

Ed. Recreation:—I should like to say a few words in answer to Grizzly Pete. I am a Western man and somewhat familiar with the type of man Grizzly Pete represents, and at one time was disposed to back the old .45-70 against all comers, but I have come in out of the smoke.

I will make this proposition to Pete: I will bet him $50 that I can shoot through a grizzly endwise with my .303 Savage and he can not do the same with his .45-70. Further, I can knock away more of a grizzly's head with one shot from my Savage than he can with 10 from his .45 70.

"Four bears at three shots"! Pretty good, Pete. If I hadn't unbounded faith in the veracity of Western men and bear hunters in particular, I'd swear that you were using an old muzzle loading shotgun loaded with bear stories at that time. You would better sell your elk skins and your old .45-70 to the Injuns and get a white man's gun Then you could clean up a whole band of elk at once, earn a big brass ring for your snout, and graze around in "Coquina's" hog pen. According to my belief, the Savage .303 is unexcelled. I have arrived at the above conclusion through a large experience with the high-pressure rifles on large game in the West.

If Grizzly Pete will call on me, I will lock horns with him upon this subject, and demonstrate my assertions to his entire satisfaction. My latch-string is always hanging on the outside, Pete, and we will labor together. And after the pine needles and dust have settled, we'll fill our pipes and scan the result for a new idea.

E. E. JONES.

TOWNSEND, MONT.

MESS. SAVAGE ARMS COMPANY, UTICA, N. Y. Jan. 16th, 1899.

Gentlemen:—I received your new catalogue for 1899. I think the small improvements you have made in your rifles make them about perfect. I find it very difficult to use a rifle with a hammer since using one of your rifles. When I sold my rifle to my guide last season, I bought a .30-30 which is a very fine rifle, but I can not get used to the hammer on it since using one of your rifles. I send you the soft-nose bullet with which I killed the large bull elk that I wrote you about some time ago. The bullet struck the elk in the right side of the neck near the shoulder and went square through the neck bone and lodged against the skin on the left side of the neck. I saw my guide the other day and he says he thinks more of his Savage now than ever and would not lay it down for any rifle he ever used before. He says it is the best killing rifle he ever saw, and he has used most all kinds of rifles from the old needle gun and old Sharp's up to the modern small calibers. He went up near Battle Lake, Wyo., in November and killed a very fine large mountain sheep. It had one of the largest and finest heads I had seen for years.

Says he killed it the first shot 237 yards off and in a very strong wind. He says he likes the Savage to shoot in the wind as the barrel is small and no long magazine to catch the wind and blow your rifle to one side.

Very truly yours,

J. S. KING.

PINKHAMPTON, COLO.

BROOKLYN, N. Y., Oct. 31, 1899.

MR. ARTHUR SAVAGE, GEN. MGR., SAVAGE ARMS CO., UTICA, N. Y.

Dear Sir—I have just returned from my hunting trip with one bull moose and two bull caribou; all killed stone dead in their tracks, with one of your incomparable .303 rifles. I shot the moose at a distance of 350 yards without elevation from the 200 yards fixed sight, across the lake and had three holes in him before he could more than turn round once. There were three bulls following one cow and I had my pick. I tried the rifle for accuracy, and at one hundred measured yards put five shots in a space less than five inches in diameter. Three of the shots could have been covered with a silver dollar. All five shots were delivered with reasonable rapidity and without ascertaining whether any of them were hitting the target. My guide was so much pleased with the rifle that he begged me to sell it to him at the full price, but I could not be induced to part with it for any money.

I fired at a bull caribou on a lake, at an estimated distance of 700 yards, without elevating the sight, merely holding it a little over his back, and wounded him in one leg, as the pool of blood in a track made by a fore foot showed. That was the first and only thing that ever got away from me after firing at him with my Savage, and I have killed deer, moose and caribou with it, not to mention ruffled grouse, rabbits, etc.

Yours truly, NOAH PALMER.

SAVAGE ARMS COMPANY, UTICA, N. Y.

Gentlemen—I purchased a Savage rifle last fall and am more than pleased with it. I have used all the popular makes of guns but will say that no gun with which I am acquainted possesses the killing and stopping power of the Savage. It certainly is the most "savage" gun I ever saw. One deer shot in the second joint of the spinal column, had his head literally shot off. Another shot in the neck without striking any bones, bled to death in going 130 yards. A goose shot in the body with a soft-point bullet had its breast actually torn off. This goose was killed at 128 yards measured, with an exceedingly fine sight, thereby showing the flat trajectory of the ball.

Another deer was shot an inch above the heart with as fine a sight as I could make, at a distance of about 300 yards. I take pleasure in recommending your guns to hunters who desire a gun that will kill instantly and not allow game to escape, suffer for days and die of wounds and be entirely lost.

I will state that this is written without solicitation, as I am sure you never heard of me before.

Yours respectfully,

LO LO, MONT. GEORGE C. RICE.

CANON CITY, COLO., March 30, 1899.

SAVAGE ARMS CO., UTICA, N. Y.

Gentlemen—Your Savage rifle made to my special order reached me yesterday by express, and my office has been crowded all day by sportsmen and hunters. When some of the oldtimers would look at the small hole in the end of the barrel they would shake their heads, but the record I made last year with one of your rifles in Alaska, I think caused them to say nothing about its being too small or light. I tell you that it is a beauty. And the fine Italian walnut and the splendid finish you gave it is par excellence. I am glad I have the first pistol grip Savage turned out at your works. This adds greatly to the appearance of the gun.

The improvements that you have made in your 1899 model are valuable, and I think you now have one of the best all-round guns on the market. Several of my friends here want a gun, and I will secure you four or five orders soon.

Yours very truly, DALL DE WEESE.

Savage Military Rifle.

The military rifle has the same action as the sporting rifle, but it is fitted with the usual military fore-stock, bands and bayonet. The butt-plate and sights are also of a military design, while the barrel is twenty-eight inches in length. This rifle embodies the following essential points of excellence, viz.: Safety, certainty of action, ease of manipulation, simplicity arising from few parts, less conditions required to load and operate the mechanism than any other magazine rifle, and great durability. The breech-bolt is in one piece, strongly supported at both ends; the recoil is taken up directly in the rear and not at the side of the chamber. There are no projecting knobs, hammer or bolt handles to become entangled in straps and clothing; the rifle has a remarkably clear, smooth appearance, free from all protuberances.

The firing mechanism can not be operated until the rifle is safely breeched up and locked; the firing-pin is cammed back from the face of the breech-bolt in the first movement of the lever in unbreeching the rifle. Double loading or jamming of cartridges is impossible; shells are positively ejected, however slowly the mechanism is operated.

In loading, either as a single loader or magazine rifle, it is only necessary that the cartridges be placed down in the breech opening, heads to the rear. The act of placing the cartridge in the breech opening presses the automatic cut-off into its recess, thereby "cutting off" the cartridges in the magazine below. This automatic arrangement eliminates the necessity for a "cut-off" operated by the soldier, thus reducing the conditions for reserving the magazine cartridges.

If a soldier fails to place a cartridge in the breech opening, a cartridge will be fed up automatically from the magazine. The rifle can be alternately and automatically used as a single loading and as a magazine rifle.

The extracting of empty shells is positive with the multiplied extracting power of over twelve to one; each empty shell is fully ejected from the rifle to the right before another cartridge can be loaded or fed up from the magazine.

A numerical indicator exposed through an opening in the frame always shows the number of cartridges contained in the magazine, and also shows when the magazine is empty. Two short movements only are required to extract and eject the fired shell, load, breech up and cock the firing mechanism, ready to fire. No special tools are required to dismount and assemble the action. The working mechanism is exposed to view by removing the butt-stock. Dangerous pressures from compressed powders are avoided by holding all the magazine cartidges by their rims in a rotary sprocket, thus preventing the bullets from being pressed too far into the shells from the action of recoil.

Magazine cartridges can be safely removed from the rifle without cocking the firing mechanism. Cartridges are loaded into the magazine through the breech opening, thereby obviating any necessity for hinged trap doors, fillers or any coverings. Dangers arising from the use of high explosive powders in shells having defective heads or primers are wholly overcome by providing a solid steel breeching shoulder between the eyes and head of the operator and the chamber, making it impossible for the powder gas to escape to the rear.

The highly popular and reliable lever action is used in the Savage rifle. It enables the soldier to operate from the shoulder or aiming position; this action also permits of using the rifle in any position, either standing, sitting or lying prone. At Creedmore the Savage rifle was placed in the hands of soldiers of the New York State guard who operated the rifle while lying prone, in competition with bolt-action rifles, fully demonstrating the practicability of the Savage lever system for this position. A soldier can work a Savage rifle closer to the ground than he can under the same conditions a bolt-action rifle.

The lever guard on the Savage rifle and carbine makes it safe and reliable for the use of cavalry. It is impossible for bridle reins or straps to become entangled with the trigger and thereby occasion accidents.

The action of the lever is short and requires little power to operate, the arm being very quick and handy. The point blank military range is up to 600 yards.

On large contracts the Savage Military rifle can be manufactured to take any military cartridge.

The Savage Military rifle, since it has been perfected, has won every contest in which it has competed.

In the matter of selection of improved firearms for the National Guard of the State of New York, the Savage rifle was recommended by the Commission appointed by Governor Morton, who, however, argued economy as his reason for not making any change from the old black powder Springfield rifles. The late war with Spain has once for all demonstrated the folly of using single-shot black powder rifles in modern warfare against smokeless powder magazine rifles.

Extract of George Kennan's Story of the War—The Outlook, August, 1898.

Among the volunteer regiments that were hotly engaged and lost heavily in Friday's battle were the Seventy-first New York and the Second Massachusetts. Both were armed with Springfield rifles, and this put them at a great disadvantage as compared with the regulars, all of whom used Krag-Jorgensen rifles or carbines with smokeless powder. In a wooded and chaparral-covered country like that around Santiago, where it is so easy to find concealment and so difficult to see troops at a distance, the use of smokeless powder is of the utmost possible importance. A body of men may be perfectly hidden in woods or chaparral within five hundred yards of the enemy's intrenchments, and if they use smokeless powder they may fire from there for half an hour without being seen or getting a return shot; but if they are armed with Springfields, the smoke from their very first volley reveals to the enemy their exact position, and the chaparral that conceals them is torn to pieces by a hail-storm of projectiles from Mausers and machine guns. It is cruel and unreasonable to ask men to go into action, in a field like this, with rifles that can be used only with common powder. You might as well require our men to hoist above the bushes and chaparral a big flag emblazoned with the words "Here we are!" Dr. Hitchcock, surgeon of the Second Massachusetts, told me that again and again, when they were lying concealed in dense scrub beside a regiment of regulars, the latter would fire for twenty minutes without attracting a single return shot from the enemy's line; but the moment the men of the Second Massachusetts began to use their Springfields, and the smoke began to rise above the bushes, the Spaniards would concentrate their fire upon the spot, and kill or wound a dozen men in as many minutes. It is to be hoped that New York and Massachusetts will not send any more men to Cuba with these antiquated guns. They were good enough in their day, but they are peculiarly unsuited to the conditions of warfare in this field.

GEORGE KENNAN, Santiago de Cuba.

Report of the New York State Board of Examiners to select Improved Arms for the National Guard.

* * * * * The Savage magazine rifle, lever action, magazine holding five cartridges, in strength and fewness of parts, very close compliance with the eleven "salient points" mentioned in the instructions for the consideration of the Board by the Adjutant General, ease of manipulation, and general all-round excellence, won the unanimous decision of the Board of Examiners as being clearly the best military magazine rifle submitted for their examination.

FOREIGN BOLT MILITARY MAGAZINE RIFLES.

We have also very critically examined a number of military magazine rifles in use in the army in this country and in Europe of foreign invention, and are free to say that in our opinion, all points carefully considered, the Savage magazine rifle herein recommended is far superior in simplicity of construction, safety, durability, effectiveness, accuracy, beauty of outline, ease and certainty of manipulation, and for the double and ready use as a single loader or as a magazine gun, to any foreign magazine arm we have inspected.

We feel confident that with the Savage magazine rifle placed in the hands of the National Guard of the State of New York a new life will be imparted to the art of target practice, great pride in the accuracy and beauty of the arm developed, and the very best weapon in the world for military purposes secured for their use.

We therefore unanimously recommend that the Savage military magazine rifle be adopted for the use of our National Guard under the authority of Chapter 600 of the Laws of 1895. * * * * *

Respectfully submitted,

ALBERT D. SHAW, *Chairman.*
E. W. BLISS.
ROBERT H. THURSTON, } *Commissioners.*

Extract from the Mexican Board of Army Officers selected by President Diaz for testing the Savage Military Rifle.

(*Translation.*) MEXICO, June 19, 1897.

The SAVAGE rifle is remarkable for its magazine, which is charged with one cartridge at a time until five have been loaded and one also in the barrel chamber, which can be reloaded whenever necessary without interfering with those in the magazine, for which reason this weapon may be called one of voluntary repetition.

In view of the number of shots made with the rifle without same being blocked in its mechanism or injured or broken in any way (the number of shots fired was about nine hundred), it may be said to have the necessary strength and solidity, and on examination of the various parts of the weapon, it was found that these possessed as far as possible the necessary resisting powers.

The powder experiments proved very satisfactory, the weapon resisting the charge, which was an excessive one, perfectly well.

The rimmed cartridge used by the Savage rifle is advantageous as compared with those made with a grooved head used by other weapons, on account of the greater security they offer for the purpose of extraction and their greater resistance.

MEXICO, June 19, 1897. (Signed) LIEUT. COL. A. IBERRI,
LIEUT. COL. GILBERTO LUNA,
GENERAL I. SALAMANCA, *President.*

Telegraphic and Cable Code.

Cable Address:—"SAVAGE, UTICA."

SPORTING RIFLES.

	ROUND.	OCT.	HALF OCT.
.303 cal., 26-inch barrel,	Abate.	Bait.	Cub.
.303 cal., 26-inch barrel, shotgun butt plate,	Abit.	Bill.	Can.
.303 cal., 22-inch barrel, shotgun butt plate,	Aback.	——	——
.303 cal., 28-inch barrel,	Abed.	Bale.	Cat.
.303 cal., 30-inch barrel,	Abode.	Barb.	Cake.

MILITARY RIFLES.

.303 cal., 28-inch barrel, . . .	Dace.

CARBINES.

.303 cal., 20-inch barrel, . . .	Fig.

CARTRIDGES.

.303 cal. Savage Smokeless Powder Cartridges,	Kail.
.303 cal. Savage Smokeless Powder Expanding Bullet Cartridges, ...	Kedge.
.303 cal. Savage Smokeless Powder Miniature Bullet Cartridges, ...	Keep.
.303 cal. Savage Paper-patched Bullet Cartridges,	Kin.
.303 cal. Savage Smokeless Powder Miniature Metal-Covered Bullet Cartridges, .	Kiss.
.30 cal. U. S. Government Smokeless Powder Cartridges, ...	Kernel.

SHELLS.

.303 cal. Savage Regular Shells, .	Label.
.303 cal. Savage Miniature Shells, . .	Lace.
.30 cal. U. S. Government Shells, . .	Lackey.

BULLETS.

.303 cal. Savage Metal-Covered Bullet, . .	Make.
.303 cal. Savage Miniature Bullet, . .	Malar.
.303 cal. Savage Expanding Bullet,	Man.
.303 cal. Savage Paper-Patched Bullet, . .	Master.
.303 cal. Savage Metal-Covered Miniature Bullet,	Mat.
.30 cal. U. S. Government Metal Covered Bullet,	Manage.

PRIMERS.

Savage Primers (No. 8½), ...	Net.

POWDER.

Savage Regular Smokeless Powder, No. 1, .	Pacha
Savage Miniature Powder, No. 2, . . .	Pad.

SAVAGE IDEAL RELOADING IMPLEMENTS.

.303 cal. Savage Cartridge No. 3, . . .	Raw.
.303 cal. Savage Cartridge No. 6, . . .	Red.

QUANTITY.

Use simple numbers up to 20.

25, ...	Sin.
50, ...	Sax.
100, ...	Shop.
500, ...	Shove
1,000, ...	Sill.
2,000, ...	Satan.
5,000, ...	Store.
10,000, ...	Offal.
20,000, ...	Stay.
50,000, ...	Strap.
100,000, ...	Stone.

Mr. Arthur Savage, the inventor, firing the Savage Magazine Rifle as a single loader with the following parts of the mechanism taken out:

1, Magazine Carrier,
2, Magazine Spindle,
3, Magazine Spring,
4, Magazine Spindle Screw,
5, Automatic Cut-off,
6, Automatic Cut-off Spring,
7, Retractor,
8, Retractor Screw,
9, Trigger Spring,
10, Trigger Spring Screw,
11, Bolt Stop,
12, Bolt Stop Screw,
13, Trigger and Lever Lock.

The above parts constitute nearly one-half the mechanism.

The recoil is so slight that the rifle can be fired without the support of the fore and butt stocks.

Griffith, Axtell & Cady Co., Printers and Embossers, Holyoke, Mass.